
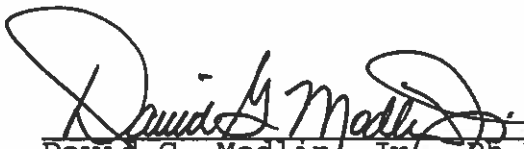


FEASIBILITY STUDY

Hope Mills  
Hope Mills Bypass  
From  
SR 1141 (Bingham Drive)  
To  
SR 1363 (Elk Mill Road)  
Cumberland County  
U-0620

Prepared by  
Program Development Branch  
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I. GENERAL DESCRIPTION

This preliminary study describes the proposed Hope Mills Bypass. Two alignments were studied. The location of the alternates is shown on Figure 1.

Alternate 1 follows the alignment of SR 1133 (George Owen Road) for approximately 1 mile (1.6 km), and includes approximately 1.9 miles (3.0 km) on new location. In addition to the bypass proper, this alternate includes approximately 0.5 miles (0.8 km) of construction to relocate SR 1107 (Fisher Road) and SR 1141 (Cumberland Road), and includes approximately 0.5 miles (0.8 km) of widening on SR 1363 (Elk Mill Road). The total length of construction for Alternate 1 is approximately 3.9 miles (6.2 km). The proposed cross-section where the alignment follows SR 1133 is a 64-foot (19.5-m) wide, 5-lane, curb and gutter section with 8-foot (2.4-m) berms, on right-of-way 90 feet (27.4 m) wide. The proposed cross-section where the alignment is on new location is a 4-lane, curb and gutter section with 8-foot (2.4-m) wide berms, and a 16-foot (4.9-m) wide median, on right-of-way 100 feet (30.5 m) wide. The proposed cross-section for the widening on SR 1363 is a 64-foot (19.5-m) wide, 5-lane, curb and gutter section with 8-foot (2.4-m) berms, on right-of-way 90 feet (27.4 m) wide. One business and 7 residential relocations are anticipated under this alternate. The total cost for Alternate 1, including construction and right-of-way, is estimated to be \$15,200,000.

Alternate 2 follows an alignment entirely on new location for a length of approximately 3.3 miles (5.3 km). In addition to the bypass proper, this alternate includes approximately 0.5 miles (0.8 km) of construction to relocate SR 1107 (Fisher Road) and SR 1141 (Cumberland Road), and includes approximately 0.5 miles (0.8 km) of widening on SR 1363 (Elk Mill Road). The total length of construction for Alternate 2 is approximately 4.3 miles (6.9 km). The proposed cross-section where the alignment is on new location is a 4-lane, curb and gutter section with 8-foot (2.4-m) wide berms, and a 16-foot (4.9-m) wide median, on right-of-way 100 feet (30.5 m) wide. The proposed cross-section for the widening on SR 1363 is a 64-foot (19.5-m) wide, 5-lane, curb

11,100 vpd respectively. The Level of Service (LOS) is estimated to be Level C in 1994 and Level D in 2015.

### III. RECOMMENDATIONS

It is recommended that a bypass of Hope Mills be constructed between SR 1141 and SR 1363, along the alignment shown in Figure 1 as Alternate 1. This alternate is recommended because it is estimated to be \$3,400,000 less costly than Alternate 2.

Alternate 1 follows the alignment of SR 1133 (George Owen Road) for approximately 1 mile (1.6 km) and includes approximately 1.9 miles (3.0 km) on new location. In addition to the bypass proper, this alternate includes approximately 0.5 miles (0.8 km) of construction to relocate SR 1107 (Fisher Road) and SR 1141 (Cumberland Road), and includes approximately 0.5 miles (0.8 km) of widening on SR 1363 (Elk Mill Road). The total length of construction for Alternate 1 is approximately 3.9 miles (6.2 km).

A railroad/highway grade separation carrying the project roadway over the CSX Railroad will be required. Traffic signal installations will be required at the intersections with relocated SR 1107, NC 59, SR 1133, SR 1003, and SR 1132.

The proposed cross-section where the alignment follows SR 1133 is a 64-foot (19.5-m) wide, 5-lane, curb and gutter section with 8-foot (2.4-m) berms, on right-of-way 90 feet (27.4 m) wide. The proposed cross-section where the alignment is on new location is a 4-lane, curb and gutter section with 8-foot (2.4-m) wide berms, and a 16-foot (4.9-m) wide median, on right-of-way 100 feet (30.5 m) wide. The proposed cross-section for the widening on SR 1363 is a 64-foot wide (19.5-m), 5-lane, curb and gutter section with 8-foot (2.4-m) berms, on right-of-way 90 feet (27.4 m) wide.

Where right-of-way is acquired for new location, it is proposed that access will be limited to one access point per parcel for parcels with no access to other facilities, and no access for parcels with access to other facilities. One business and 7 residential relocations are anticipated under this alternate. The total cost for Alternate 1, including construction and right-of-way, is estimated to be \$15,200,000, as follow:

Construction.....	\$11,400,000
Right-of-Way.....	3,800,000
Total Cost .....	\$15,200,000



